

Title (en)
 BASE STATION, CHARGING STATION, AND/OR SERVER FOR ROBOTIC CATHETER SYSTEMS AND OTHER USES, AND IMPROVED ARTICULATED DEVICES AND SYSTEMS

Title (de)
 BASISSTATION, LADESTATION UND/ODER SERVER FÜR ROBOTERKATHETERSYSTEME UND ANDERE ANWENDUNGEN SOWIE VERBESSERTE GELENKIGE VORRICHTUNGEN UND SYSTEME

Title (fr)
 STATION DE BASE, STATION DE CHARGE, ET/OU SERVEUR POUR SYSTÈMES DE CATHÉTERS ROBOTISÉS ET AUTRES UTILISATIONS, ET DISPOSITIFS ET SYSTÈMES ARTICULÉS AMÉLIORÉS

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Application
EP 17857458 A 20170928

Priority
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 • US 201662401005 P 20160928
 • US 2017054139 W 20170928

Abstract (en)
 [origin: US2018085559A1] Articulation devices, systems, methods for articulation, and methods for fabricating articulation structures will often include simple balloon arrays, with inflation of the balloons interacting with elongate skeletal support structures so as to locally alter articulation of the skeleton. The skeleton may comprise a simple helical coil or interlocking helical channels, and the array can be used to locally deflect or elongate an axis of the coil under control of a processor. Liquid inflation fluid may be directed so as to pressurize the balloons from an inflation fluid canister, and may vaporize within a plenum or the channels or balloons of the articulation system, with the inflation system preferably including valves controlled by the processor. The articulation structures can be employed in minimally invasive medical catheter systems, and also for industrial robotics, for supporting imaging systems, for entertainment and consumer products, and the like.

IPC 8 full level
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Citation (search report)
 • [X] WO 2015182178 A1 20151203 - SHARP KK [JP], et al
 • [XI] US 2004186378 A1 20040923 - GESSWEIN DOUGLAS [US]
 • [XI] US 2014046250 A1 20140213 - JAIN AJAY KUMAR [GB], et al
 • [XI] US 2005203371 A1 20050915 - KLEEN MARTIN [DE]
 • [A] US 2016249900 A1 20160901 - AOKI HITOSHI [JP], et al
 • See references of WO 2018064400A1

Cited by
 US11173027B2; US11253359B2; US11273033B2; US11786366B2; US10595994B1; US11071627B2; US11076956B2; US11185409B2; US11109969B2; US11234813B2; US11273032B2; US11344413B2; US11202706B2; US11331186B2; US11166814B2; US11179239B2; US11278437B2; US11298227B2

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